

**FIG. 1**

1	accagcgcacttcggcagcggcagcacctcggcagcacctcagcagcaacatgccagca	60
1	tggtcgcgtgaagccgtcgccgtcgtggagccgtcgtggagtcgtcgttgtaggggtcgt	
	M P S K	
61	agaagaatggaagaagcggaccccaaccacataaaaaggtgggtgttcacgctgaataatc	120
1	tcttcttaccttcttcgcctgggggttggtgtatgtttccaccacaaagtgcgacttattag	
	K N G R S G P Q P H K R W V F T L N N P	
121	cttccgaagacgagcgcgaagaaaatacgggagctcccaatctccctatttgattatttta	180
1	gaaggcttctgctcgcgttcttttatgcctcgagggttagagggataaactaataaaat	
	S E D E R K K I R E L P I S L F D Y F I	
181	ttgttggcgaggagggtaatgaggaaggacgaacacctcacctccaggggttcgctaatt	240
1	aacaaccgctcctcccattactccttctgcttgtgtggagtgagggtccccaagcgattaa	
	V G E E G N E E G R T P H L Q G F A N F	
241	ttgtgaagaagcaaaacttttaataaagtgaagtgggtatgttgggtgcccgctgccacatcg	300
1	aacacttcttcgtttgaaaattatttcacttcaccataaaccacgggcgagcgggtgtagc	
	V K K Q T F N K V K W Y L G A R C H I E	
301	agaaagccaaaggaactgatcagcagaataaagaatatgtagtaaagaaggcaacttac	360
1	tctttcggtttctttagactagtcgtcttattttcttataacatcatttcttcgggtgaatg	
2	K A K G T D Q Q N K E Y C S K E G N L L	
	*	
361	ttattgaatgtggagctcctcgatctcaaggacaacggagtgacctgtctactgctgtga	420
1	aataacttacacctcgaggagctagagttcctgttgccctcactggacagatgacgacact	
2	I E C G A P R S Q G Q R S D L S T A V S	
3	K N F T S S R S R L S L P T V Q R S S H	
	* P C R L S R D V A T	
421	gtaccttgttggagagcgggagtcgtggtgaccgttgccagagcagcacctgttaacgtttg	480
1	catggaacaacctctcgccctcagaccactggcaacgtctcgtcgtgggacattgcaaac	
2	T L L E S G S L V T V A E Q H P V T F V	
3	T G Q Q L A P T Q H G N C L L V R Y R K	
	L V K N S L P L R T V T A S C C G T V N	
481	tcagaaatttccgcgggctggctgaacttttgaaagtgcgagggaatgcagaagcgtg	540
1	agtctttaaaggcgcccgaccgacttgaaaactttcactcgcccttttacgtcttcgcac	
2	R N F R G L A E L L K V S G K M Q K R D	
3	D S I E A P Q S F K Q F H A P F H L L T	
	T L F K R P S A S S K F T L P F I C F R	
541	attggaagaccaatgtacacgtcattgtggggccacctgggtgtggtaaaagcaaatggg	600
4	taaccttctggttacatgtgcagtaacaccccggtggaccacaccattttcgtttacc.	
1	M Y T S L W G H L G V V K A N G	
2	W K T N V H V I V G P P G C G K S K W A	
3	I P L G I Y V D N H P W R P T T F A F P	
	S Q F V L T C T M	
601	ctgctaattttgcagacccggaaaccacatactggaaaccacctagaaacaagtgggtggg	660
4	gacgattaaaacgtctgggcctttggtgtatgaccttgggtggatctttgttcaccaccc	
1	L L I L Q T R K P H T G N H L E T S G G	
2	A N F A D P E T T Y W K P P R N K W W D	
	S S I K C V R F G C V P F W R S V L P P	

FIG. 2A

661	atgggttaccatgggtgaagaagtgggtgttattgatgacttttatggctggctgccgtggg	720
4	taccaatgggtaccacttcttccaccaacaataactactgaaaataaccgaccgacggcacc	
1	M V T M V K K W L L L M T F M A G C R G	
2	G Y H G E E V V V I D D F Y G W L P W D	
	I T V M	
721	atgatctactgagactgtgtgatcgatatccattgactgtagagactaaaggtggaactg	780
4	tactagatgactctgacacactagctataggttaactgacatctctgatttccaccttgac	
1	M I Y *	
	D L L R L C D R Y P L T V E T K G G T V	
781	taccttttttggcccgagctattctgattaccagcaatcagaccccggttgaatgggtact	840
1	atggaaaaaacggggtcgatcataagactaatgggtcgtagtctggggcaaccttaccatga	
	P F L A R S I L I T S N Q T P L E W Y S	
841	cctcaactgctgtcccagctgtagaagctctctatcgaggattacttcccttgggtatttt	900
1	ggagttgacgacaggggtcgacatcttcgagagatagcctcctaataaggaaccataaaa	
	S T A V P A V E A L Y R R I T S L V F W	
901	ggaagaatgctacaaaacaatccacggaggaagggggccagttcgtcaccctttccccc	960
1	ccttcttaacgatgttttgttaggtgcctccttcccccggtcaagcagtgggaaagggggg	
	K N A T K Q S T E E G G Q F V T L S P P	
961	catgccctgaatttccatataaaataaattactgagtccttttttatcacttcgtaatgggt	1020
5	gtacgggacttaaggtatactttatttaatgactcagaaaaaatagtgaagcattacca	
1	M V	
	C P E F P Y E I N Y *	
1021	ttttattattcatttaggggttcaagtggggggtcctttaagattaaattctctgaattgta	1080
5	aaaataataagtaaatcccaagttcaccctccagaaattctaatttaagagacttaacat	
6	F I I H L G F K W G V F K I K F S E L Y	
	* P E L P P D K L N F E R F Q	
1081	catacatgggttacacggatattgtagtcctgggtcgtagtttactgttttcgaacgcagtg	1140
5	gtatgtaccaatgtgcctataacatcaggaccagcataaatgacaaaagcttgctgcacg	
6	I H G Y T D I V V L V V F T V F E R S A	
	V Y M T V R I N Y D Q D Y K S N E F A T	
1141	cgaggcctacgtgggtccacatttccagaggtttgtagcctcagccaaagctgattccttt	1200
5	gctccggatgcaccaggtgtaaaggtctccaaacatcggagtcggtttcgactaaggaaa	
6	E A Y V V H I S R G L *	
	G L G V H D V N G S T Q L R L W L Q N R	
1201	tggtatttgggttgaagtaataatagtgagtgcaagaacaggtttgggtgtgaagtaac	1260
6	acaataaaaccaaccttcatttagttatcacctcagttccttggtccaaaccacacttcattg	
	K N N P Q F Y D I T S D L V P K P T F Y	
1261	gggagtggttaggagaaggggttgggggattgtatggcgggaggagtagtttacatatgggt	1320
6	ccctcaccatcctcttcccaacccccctaacataccgccctcctcatcaaatgtatacca	
	R S H Y S F P Q P I T H R S S Y N V Y P	
1321	catagggttagggctgtggcctttgttacaaagttatcatctaaaataacagcagtgaggc	1380
6	gtatccaatcccgacaccggaacaatgtttcaatagtagattttattgtcgtcacctcg	
	D Y T L A T A K T V F N D D L I V A T S	

FIG. 2B

1381	ccactccctatcacccctgggtgatggggagcaagccagaattcaaccttaacctttc	1440
6	ggtgaggggagatagtggaacccactacccccctcgttcgggtccttaagttggaattggaaag	
	G V G R D G Q T I P S C P W F E V K V K	
1441	ttattctgtagtattcaagggtatagagattttgttggtccccccctcccgggggaacaa	1500
6	aataagacatcataaagtttcccatatctctaaacacacaggggggagggcccccttgtt	
	R I R Y Y E F P I S I K N T G G G P P V	
1501	agtcgtcaattttaaatctcatcatgtccaccgccccagaggcggttgactgtgtgtac	1560
6	tcagcagttataaatttagagtagtacagtgggcggtcctccccgcaacactgacaccatg	
	F D D I K F R M M D V A W S P T T V T T	
1561	gcttgacagtatatccgaaggtgcgggagagcggtgtgaagatgccatttttccttc	1620
6	cgaactgtcatataggcttcacgcccctctccgcccacaaacttctacggtaaaaaaggaaag	
	R K V T Y G F T R S L R T N F I G N K R	
1621	tccaaacggtagcggtggcggggtggacgagccagggcgggcgaggatctggccaa	1680
6	aggttgccatcgccaccgccccacactgctcggtcccgcccgccgctcctagaccgggtt	
	R W R Y R H R P H V L W P R R R L I Q G	
1681	gatggctgcggggcggtgtcttcttctgcggtaaacgctccttgatagcgtcatagctg	1740
6	ctaccgacgccccgccacagaagaagacgccattgcggagggaacctatgcagtatcgac	
	L H S R P R H R R R R Y R R R R P Y T M	
1741	aaaacgaaagaagtgcgctgtaagtatt	1800
	ttttgctttcttcacgcgacattcataa	

FIG. 2C











	PCV	ACCAGCCACCTTCGGCAGCGGCGAGCACCTCGGCAGCG--TCAGT--GAATGCAAGCAAGAA-----AAGCGCCCCAACCCCATAAGAGGTGGGTGTTTCAACCCCTTAATAAT	
	412	ACC CAGC C C GAATGGAAG A C A A A G G	
	9741	ACC CAGC C C GAATGGAAG A C A A A G G	
	B9	ACC CAAC C C GAATGGAAG A C A A A G G	
	PCV	CTTCGAGGAGGAGAAAAACAATAATAGGGAGCTTCCAATCTCCCTTTTGATTATTTTTGTTGCGGAGAGAGGTTTGGAGAAGGCTAGACTCTCCACCTCCAGGSGTTTTCGCAATT	
	412	A C CGC G A GTT C G AAT G A AC A C T	
	9741	A CA CGC G A GTT C G AAT G A AC A C T	
	B9	A CA CGC G A GTT C G AAT G A AC A C T	
	PCV	TTCGTAAGAACGACACTTTTAAACAAGGTGAAGTGTATTTTGGTGGCCCTGCCACATCGAGRAAGCGAAGGACCGACCGAGAATAAAGAATACTGCAGTAAAGAGGCCACATAC	
	412	TG A T A G C T T T T	A T
	9741	TG A T A G C T T T T	A T
	B9	MISSING	
	PCV	TTATCGAGTGTGGAGCTCGCGGAACAGCGGGAAGCGGAGCGACTCTCTACTGCTGAGTAGCCCTTTTGGAGACGGGTCTTTGTGTGACTGTAGCCGAGCAGTTCCTCTGTAAACGTATG	
	412	T A T ATCT A AC A G T G GC AT C C T AA CA T	
	9741	T A T ATCT A AC A G T G GC AT C C T AA CA T	
	B9	MISSING	
	PCV	TGAGAAATTTCCCGGGCTGGCTGCAACTTTTGAAAGTGAGCGGGAAGATGCAGCAGCGTGAITTTGGAAGACAGCTGTACAGTCTATAGTGGCGCCCGGTTGTGGGAGAGCCACTGGG	
	412	C A A AA A CAA T T G G A T G T A A A	
	9741	C A A AA A CAA T T G G A T G T A A A	
	B9	C A A AA A CAA T T G G A T G T A A A	
	PCV	CCCCTAATTTTGGCTGAGCCTAGGACACCTACTGGAAGCCTACTAGAAAGCTGTGGTGGATCATGAGAGAGAAGTGTGTTGGATGATTTTATGCGTGTACCTTGGG	
	412	TGC AA C GGAAC A ACC A C T C T A G A T C C G G	
	9741	TGC AA C GGAAC A ACC A C T C T A G A T C C G G	
	B9	TGC AA C GGAAC A ACC A C T C T A G A T C C G G	
	PCV	ATGATCTACTGAGACTGTGTACCGGTATCCATTGACTCTGAGAGACTAAAGGGGTACTGTCTCTTTTGGCCCGCAGTATTTTGATTCACGCAATCAGGCCCCCGCAGGAATGTTACT	
	412	A T A T A A C C C A GTT	
	9741	A T A T A A C C C A GTT	
	B9	A T A T A A C C C A GTT	
	PCV	CCTCAACTGCTGCCAGCTGTAGAAAGCTCTATCGGAGGATTACTACTTTTGCAATTTTGGAAAGACTGTGGAGAACAAATCCACGGAGGTATCCCGAAGCCGANTTTGAAGCAGTGAGCC	
	412	T C GT A AC A A ... GG AG C TCA CC TTC	
	9741	T C GT A AC A A ... GG AG TCA CC TTC	
	B9	T C GT A AC A A ... GG AG TCA CC TTC	
	PCV	CACCTGTGCCCCTTTCCCATATATAAATAAATTACTGAGTCTTTTGTATTATCAGATCGTAATGGTTTTTAT-TTTATTTA----TTTA-----GAGGTCCTTTTAGGAATAAATTTCTCTGA	
	412	C A CC TGAA T G --- T GGG C AGTG G A AT	
	9741	C A CC TGAA T G --- T GGG C AGTG G A AT	
	B9	C A CC TGAA T G --- T GGG C AGTG G A AT	

**FIG. 4A**

PCV	ATTGTACATAAATAGTCAGCCTTACCCACATAAATTTTGGGCTGTGGCTGCA-TTTTGGAGCCGCAATAGCCGAGCCCTGTGTGCTCGACATTGTGTGGGTATTTAAATGGAGGCCACAGCTGG
412	C G T CA GG TATTG G CC T - ATT A TG C A GT AC G C TCCAGA T G GCCTC A A
9741	C G T CA GG TATTG G CC T - ATT A TG C A GT AC G C TCCAGA T G GCCTC A A
B9	C G T CA GG TATTG G CC T - ATT A TG C A GT AC G C TC AGA T G GCCTC A A

PCV	TTTCTTTTATTATTGTTGGTGGAAACCAATCAATCTTTGTTGCTCCAGCTCAGGTTTGGGGGTGAAGTACCTGGAGTGTGTAAGGGCTCCTTATGGTGTGGCGGAGGAGTAGTTAATA
412	C G T GT T A GGA A AA T A G A G T GGG T A T C
9741	C G T GT T A GGA A AA T A G A G T GGG T A T C
B9	C G T GT T A GGA A AA T A G A G T GGG T A T C

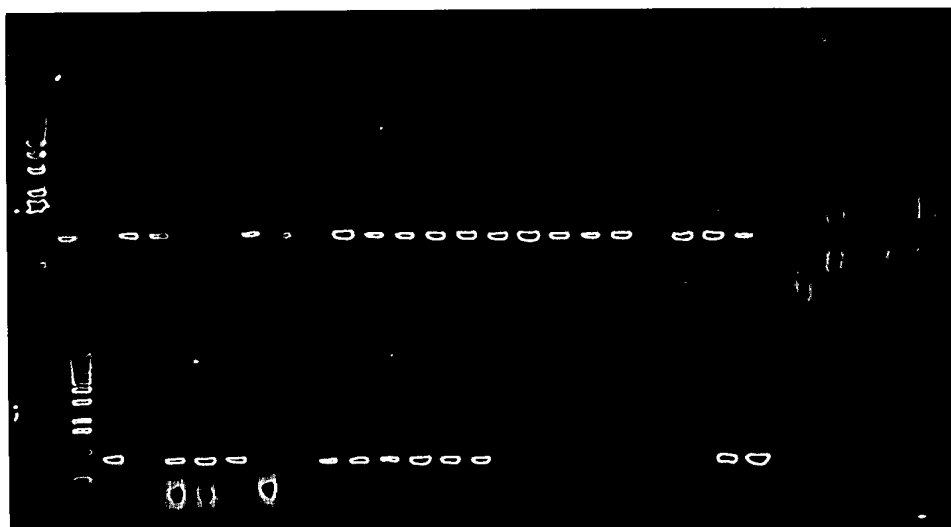
PCV	TAGGGTCATAGGCCCAAGTTGTGGAGGGGCTTACAAAGTTGGCATCCCAAGATAACAACAGTGGACCCCAACCTCTTTTGAATTAGAGGTGATGGGTCTCTGGGTAAATTCATATTTA
412	T TT G GCT CCTTT AT T A G G C T C A C CCCTG GAG AA CC G ACC
9741	T TT G GCT CCTTT AT T A G G C T C A C CCCTG GAG A CC G ACC
B9	T TT G GCT CCTTT AT T GA G G C T C A C CCCTG GAG A CC G ACC

PCV	GCCTTCTTAATACGGTAGTATTGGAAAGTAGGGGTAGGGGTTGTGGCCCGCTGAGGGGGAGGAACCTGCCCGATGTGAATTTAGGTAGTTAACATTCCAGATGGC--TGCAGT
412	A T T T CA G TA AG TTTT C C CCC A CA G C T A T A C C TCAT CC CGC G G GT T C
9741	A T T T CA G TA AG TTTT C C CCC A CA G C T A T A C C TCAT CC CGC G G GT T C
B9	A T T T CA G TA AG TTTT C C CCC A CA G C T A T A C C TCAT CC CGC G G GT T C

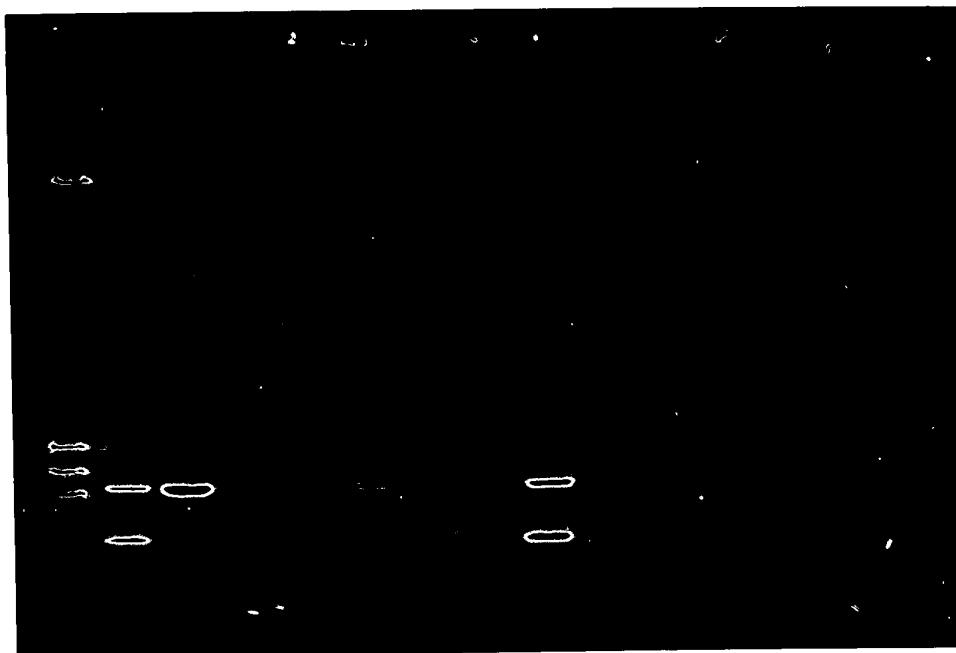
PCV	ATCCTCCTTTT-ATGGTGAGTACAAATCTGTAGAAAGCGGGGAATTGAAGATACCCGCTTTGCGGCCCATCTGTAAACGGTTTCTGAAAGCGGGG-TGTGCCAAATATGCTCTTCTCCG
412	G GG A GC G CA ATA C G GGTGCGG G TG G AT T C TT T A G G ..... G GA G GCC G G GG GG
9741	G GG A GC G CA ATA C G GGTGCGG G TG G AT T C TT T A G G ..... G GA G GCC G G GG GG
B9	G GG AGC G CA ATA C G GGTGCGG G TG G AT T C TT T A G G ..... G GA G GCC G G GG GG

PCV	GAGGATGTTTCCAGATGGCTGCGGGGCGGTCTTCTTCTGCGGTAAACGGCTCCTTGGCCAGCTCATCTATATAAAGTGAAGAAGTCCGCTGCTGTA-GTATT
412	C GG TGT AT AGCTG C- ... A
9741	C GG TGT AT AGCTG C- ... A
B9	C GG TGT AT AGCTG C- ... A

FIG. 4B



**FIG. 6**



*FIG. 5*